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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BARNIE, REXFORD N

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 03/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

MM

Office Action Summary

Application No.
09/582,637

Applicant(s)

OLOFSSON ET AL.

Examiner

Rexford Barnie

Art Unit

2643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Dec 18, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 34-63 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 34-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

Art Unit: 2643

DETAILED ACTION

Allowable Subject Matter

1. Applicant is advised that the Notice of Allowance mailed 12/18/01 is vacated. If the issue fee has already been paid, applicant may request a refund or request that the fee be credited to a deposit account. However, applicant may wait until the application is either found allowable or held abandoned. If allowed, upon receipt of a new Notice of Allowance, applicant may request that the previously submitted issue fee be applied. If abandoned, applicant may request refund or credit to a Deposit Account.

The examiner believes the cited prior art of record (Scholtz) teaches most of the claimed subject matter that is being able to use a splitter or filter apparatus also as a testing means in determining the quality of a subscriber loop except transmitting a unique code which makes it possible to determine where the test signal is done, arguably, well known in the art during remote testing to a central office thus making it possible to determine the location of a testing site based on ANI and so forth.

Art Unit: 2643

Claim Rejections - 35 USC § 112

2. Claim 58 recites the limitation "event" in line 2. There is insufficient antecedent basis for this limitation in the claim. Claim 58 is directly dependent on claim 49 which fails to mention "an event", for that matter the claim should be cancelled or made dependent on claim 46 wherein the limitation "event" is cited.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103© and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 34-39, 42, 43, 46-51, 53 and 60-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholtz et al. (US Pat# 6,301,337) in view of Lechleider et al. (US Pat# 6,091,713).

Art Unit: 2643

Regarding claims 34, 46 and 63, Scholtz et al. teaches a combined handset and POTS FILTER comprising of an active splitter circuitry to be connected to a subscriber line for separating analog POTS signals from XDSL signals (see figs. 3, 6, column 1 lines 6-9, column 3 lines 43-50) and line test circuitry (see 70 of fig. 3, and operational circuitry of fig. 6) associated with the active splitter for transmitting a test signal in accessing the *quality of a local subscriber loop*. Eventhough, Scholtz fails to teach using a unique identity code received during testing and associated with a communication device to identify a loop being tested, it's notoriously well known in the art to use identification codes including ANI or CLI in identifying a subscriber loop which is being tested to determine the quality of the loop/line and to make the necessary changes if needed.

Lechleider teaches generating a test signal any a telephone device (102, column 4 lines 33-42) which goes off-hook from an on-hook state to generate a telephone call to a central station and also transmits caller ID or ANI information associated with the subscriber line (see column 5 lines 43-65, column 7 lines 23-47). The test signal would be analyzed by a qualification center or system (190 of fig. 1) in determining whether the line is capable of carrying or supporting digital signals.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of either one of the secondary references into that of Scholtz thus making it possible to identify a line, loop or circuits being tested, if any changes are to be made to the loop or line based on test results.

Art Unit: 2643

Regarding claim 35, The combination teaches a test signal specifically meant to determine the quality of a subscriber loop.

Regarding claim 36, The combination including Lechleider teaches using a test signal in performing a plurality of measurements which can then be used in determining whether a line for instance is capable of carrying digital signals (see entire disclosure of Lechleider).

Regarding claim 37, The combination including Winkler teaches being able to use pulse test signals in determining qualities of a loop (see column 9 of Winkler).

Regarding claim 38, see the explanation as set forth in the rejection of claim 34.

Regarding claim 39, It would have been obvious to use any testing signal which can be used for digital testing a of a loop or trunk in determining its quality.

Regarding claim 42, The combination teaches testing using a pre-determined schedule (see column 13 lines 1-5).

Regarding claims 43 and 60, The combination teaches testing including short-circuiting of the subscriber line (see columns 5-6 of Winkler).

Regarding claims 47-48, The combination teaches being able to go off-hook from an on-hook status to generate a remote call including a test signal in determining the quality of a subscriber loop (see Lechleider or Scholtz).

Regarding claim 49, see the explanation as set forth in the rejection 34. Furthermore, the combination of Scholtz and Lechleider teaches the possibility of being able to assess the quality of

Art Unit: 2643

a subscriber loop including loops capable of carrying digital signals. The user can request testing of a subscriber loop by activating a test telephone including the circuitry as taught by Scholtz.

Regarding claims 50-51 and 53, The combination including Lechleider or Scholtz teaches the possibility of being able to performed any desired line test using a test signal.

Regarding claims 61-62, The combination including Lechleider teaches being able to assess and store characteristics associated with a subscriber loop for future reference based on a test signal received from a remote station.

5. Claims 40-41 and 55-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over rejection of claim 34 in view of EP (0 790977 A2, **cited by applicant**).

Regarding claims 40-41 and 55-56, The combination teaches analyzing a power spectral density but fails to teach a series of sinusoidal signals of known amplitude, each signal in the series having a different frequency, the series spanning a frequency range for which a line is to be tested but EP '977 teaches a method of transmitting a signal with ADSL characteristics which would have a sinusoidal form wherein its power density can be analyzed (see figs. 5, 7, 9, 11).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of EP '977 into that of the combination thus making it possible to analyze features such as power spectral density associated with the sinusoidal signal.

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Art Unit: 2643

6. Claims 44-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over rejection of claim 34 in view of Bingel.

Regarding claims 44-45, The combination fails to teach the claimed subject matter but Bingel teaches an apparatus and method for qualifying telephones and other attached equipment for optimum DSL operation by means of an ASIC (110 of figs. 2 and 4-6).

Therefore, it would have been obvious to include the teaching of Bingel into that of the combination thus making it possible to minimize circuitry, an advantage associated with digital processing/testing means.

7. Claims 46, 49 and 57-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over rejection of Scholtz in view of Chan (US Pat# 5,974,115).

Regarding claims 46 and 49, Scholtz et al. teaches a combined handset and POTS FILTER comprising of an active splitter circuitry to be connected to a subscriber line for separating analog POTS signals from XDSL signals (see figs. 3, 6, column 1 lines 6-9, column 3 lines 43-50) and line test circuitry (see 70 of fig. 3, and operational circuitry of fig. 6) associated with the active splitter for transmitting a test signal in accessing the *quality of a local subscriber loop*. Eventhough, Scholtz fails to teach using a unique identity code received during testing and associated with a communication device to identify a loop being tested, it's notoriously well known in the art to use identification codes including ANI or CLI in identifying a subscriber loop which is being tested to determine the quality of the loop/line and to make the necessary changes if needed.

Art Unit: 2643

Chan teaches a system and method for testing subscriber lines and terminating equipment comprising of requesting a plurality of test after which a test can be performed on line to determine the quality of the line (see column 8 lines 48-54) during a time interval after disconnection. Chan teaches sending caller ID information or ANI to a central office during a receipt of a test request signal.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Chan into the combination thus making it possible to determine the quality of a subscriber line by testing the line as such.

Regarding claim 57, see the explanation as set forth in the rejection above.

Regarding claim 58, The combination teaches being able to select from one of a plurality and performing a plurality of test based on a predetermined selection criterion.

Regarding claim 59, The combination teaches being able to identify a subscriber loop based on ANI.

8. Claims 34, 52 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scholtz in view of Winkler (US Pat# 5,870,451).

Regarding claim 34, Scholtz et al. teaches a combined handset and POTS FILTER comprising of an active splitter circuitry to be connected to a subscriber line for separating analog POTS signals from XDSL signals (see figs. 3, 6, column 1 lines 6-9, column 3 lines 43-50) and line test circuitry (see 70 of fig. 3, and operational circuitry of fig. 6) associated with the active splitter for transmitting a test signal in accessing the *quality of a local subscriber loop*.

Art Unit: 2643

Eventhough, Scholtz fails to teach using a unique identity code received during testing and associated with a communication device to identify a loop being tested, it's notoriously well known in the art to use identification codes including ANI or CLI in identifying a subscriber loop which is being tested to determine the quality of the loop/line and to make the necessary changes if needed.

Winkler et al. teaches testing means which receives and stores unique code information (see column 16 line 56-column 17) associated with measurements taken on a subscriber line.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of either one of the secondary references into that of Scholtz thus making it possible to identify a line, loop or circuits being tested, if any changes are to be made to the loop or line based on test results.

Regarding claims 52 and 54, The combination teaches testing by means of pulse (see column 4 lines 26-34 of Winkler). It would have been obvious to one of ordinary skill in the art to use any known testing signal inorder to be able to assess the quality of a subscriber line.

Art Unit: 2643

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jones teaches an apparatus teaches an apparatus and method for testing a digital communications circuits including transmitting a unique code or identifier during testing of circuits (see column 11 lines 18-24).

10. Any inquiry concerning this communication or earlier communication from the examiner should be directed to REXFORD BARNIE whose telephone number is (703) 306-2744. The examiner can normally be reached on Monday through Friday from 8:30 to 6:00p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz, can be reached on (703) 305-4708.

Any response to this action should be mailed to:

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Washington, D.C. 20231

or faxed to (703) 872-9314 and labeled accordingly (Please label **"PROPOSED/INFORMAL"** or **"FORMAL"**).

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist whose telephone number is (703) 306-0377.

Rexford Barnie
Patent Examiner
RB 02/12/02

Rexford Barnie